

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of

Location-Based Routing
For Wireless 911 Calls

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PS Docket No. 18-64

REPLY COMMENTS OF THE NATIONAL EMERGENCY NUMBER ASSOCIATION

The National Emergency Number Association (“NENA”)¹ hereby submits these reply comments in response to the Commission’s Notice of Inquiry (“Notice”)² in the above-captioned proceeding. In these reply comments, NENA emphasizes that improvements to E9-1-1 wireless call routing are not mutually exclusive with progress toward Next Generation 9-1-1 and that the 9-1-1 community cannot wait for Next Generation 9-1-1 to address the significant issues stemming from imprecision inherent in the routing of wireless calls.

**1. Imprecision in 9-1-1 Call Routing Is A Serious Problem That Merits Near-term Action by
The Commission**

No matter its exact extent, the occurrence of 9-1-1 “misroutes” is significant enough to merit action.³ As the Commission has noted, delays of 40 seconds due to call transfers as a result of a “misroute” are commonplace.⁴ Instances of “misroutes” are not isolated, either, as made clear by the

¹ NENA: The 9-1-1 Association improves 9-1-1 through research, standards development, training, education, outreach, and advocacy. Our vision is a public made safer and more secure through universally-available, state-of-the-art 9-1-1 systems and trained 9-1-1 professionals. NENA is the only professional organization solely focused on 9-1-1 policy, technology, operations, and education issues.

² See LOCATION-BASED ROUTING FOR WIRELESS 911 CALLS, PS Docket No. 18-64, Notice of Inquiry (rel. Mar. 23, 2018) (hereinafter “NOI”).

³ In this document, “misroute” is used with the same meaning as is indicated in the Commission’s NOI. See NOI fn. 1.

⁴ See generally NOI fn. 4. NENA notes call transfer times commonly requiring up to 80 seconds, depending on the rerouting technique used.

Texas 9-1-1 Authorities in their comments.⁵ NENA supports further study of the frequency and severity of misroutes but urges the Commission to avoid delaying the deployment of solutions while the 9-1-1 community amasses more comprehensive data. Procrastination on this issue is simply not an option.

AT&T suggests in its reply comments that the Commission should encourage PSAPs and CMRS providers to cooperate in order to resolve routing issues.⁶ Comtech echoes these sentiments, noting the recommendations of the California 9-1-1 Workgroup that improvements can be made in the interactions between PSAPs and carriers to determine routing assignments.⁷ NENA supports cooperation between all stakeholders in the 9-1-1 chain of communication as well as improvements to the routing determination process, but warns that these process improvements place on PSAPs a disproportionate burden of hiring and retaining highly qualified technical staff at a time when these PSAPs are already facing staffing and expertise shortages. This burden on the PSAP only stands to increase as small cell deployments increase and antenna technology becomes more complex and dynamic.⁸ NENA requests that the Commission weigh the operational costs borne by the PSAP when assessing routing management process improvements.

2. Next Generation 9-1-1 and Location-Based Routing Solutions Are Not Mutually Exclusive

NENA believes concerns that pursuing LBR improvements to E9-1-1 will slow the transition to NG9-1-1 are overstated.⁹ While NENA agrees with T-Mobile and others that the Commission should “encourage

⁵ See Texas 9-1-1 Entities Comments at (“145,307 of the 1,514,339 wireless 9-1-1 calls with wireless Phase II information were misrouted, or an aggregate average of 9.60%”).

⁶ See AT&T Comments at fn. 4.

⁷ See Comtech Comments at fn. 10.

⁸ For example, the City of Houston approved applications for nearly 550 new small cells between September 2017 and May 2018. <https://www.bizjournals.com/sanantonio/news/2018/05/17/how-sas-small-cell-network-for-future-5g-stacks-up.html>. Modern small cell technology also makes use of dynamic power adjustments and beamforming, affecting the coverage area of a cell sector and adding complexity to its routing policy determination.

⁹ See e.g. T-Mobile Comments at 7 (“Diverting resources to redesign routing for legacy operations could ultimately slow the transition to NG911 . . .”); CTIA Comments at 7 (“In pursuing location-based routing for current 9-1-1 systems, the Commission could be forcing service providers and PSAPs to divert resources to an imperfect, and potentially problematic, solution to misrouted 9-1-1 calls. Instead, the Commission should continue to focus stakeholder resources on the implementation of NG911 . . .”)

911 stakeholders to migrate expeditiously to next generation technologies,” we do not believe those efforts in pursuit of NG9-1-1 have to come at the cost of efforts to increase call routing precision.¹⁰

LBR need not be universally implemented in order to benefit 9-1-1 and the public safety community. The Texas 9-1-1 Entities note in their initial comments that routing issues often occur in particularly problematic cell sectors.¹¹ Thus, problem areas for routing could be prioritized in the deployment of LBR, while areas that see very few “misroutes” can remain served by legacy cell sector routing techniques. Transitional solutions like this would not only reduce costs for carriers (relative to nationwide deployment of LBR) but would also provide an important proving ground for these new technologies.

3. Improved Routing Precision Cannot Wait for Next Generation 9-1-1

The Commission should not simply wait, as has been suggested, for Next Generation 9-1-1 to fix problems with call routing. New location techniques are capable of quickly improving location accuracy in the near future. While NENA agrees that thorough testing is required before novel routing solutions can be implemented in place of legacy cell sector techniques, these solutions must be pursued with great zeal by all parties involved in the call routing process.

4. Conclusion

NENA thanks the Commission for the opportunity to comment on this important matter and looks forward to engaging with stakeholders and regulators in the 9-1-1 community and industry to work toward improvements in E9-1-1 routing and pursuit of nationwide NG9-1-1.

¹⁰ T-Mobile Comments at 6.

¹¹ See Texas 9-1-1 Entities Comments at 2-3 (“approximately 70% of the cell sectors indicated no misroutes, while approximately 10% of the sectors have greater than 50% misroutes, with certain enclave areas or cities surrounded by another city often being materially impacted by misroutes”).

Respectfully submitted,

/s/_____

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